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The Bulletin
OF THE
South Indian Medical Union.

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PUBLICITY SECTION.

NOTICE.

1. The Union does not accept any responsibility for the views and statements of the contributors as published in the Bulletin; all manuscripts, books, drugs, and other appliances for review and letters intended for publication must bear the name and address of the author, not necessarily for publication.

2. Copy, cuts and blocks for advertisement should reach this Office at least before the 15th of the month of issue. Advertising rates will be supplied on application. Every effort will be made to accommodate advertisers' request for suitable space, position and proper display of advertisements but particular positions cannot be guaranteed. All advertisements are accepted subject to the above.

3. Remittances should be made by crossed cheques, registered letter or money order, payable to the *Publicity Section*, South Indian Medical Union.

4. Medical Students and those interested in Medical Relief will be placed on the complimentary mailing list of the BULLETIN on application to the Publicity Section.

Address all communications for :—

(1) Publicity Section—51, Poonamallee Road, Kilpauk, Madras.
(2) General Section—100, Poonamallee Road, Vepery, Madras.

Programme.

JANUARY 1931.

Meetings held at 32, Broadway.

Monday 12th, 6-30 p.m.

X-RAY EXAMINATION OF THE GASTRO-INTESTINAL TRACT

BY

Dr. P. Rama Rao

Monday 26th, 6-30 p.m.

SOME CLINICAL NOTES ON SALYRGAN

BY

Dr. T. Krishna Menon, M.B.,
(Physician, General Hospital.)

Members of the Union may exhibit any interesting case for demonstration at the meetings.

* * *

All members of the Medical profession and medical students are cordially invited.

South Indian Medical Union, Madras.

General Notes.

The recent G. O. discontinuing the practice of countersignature of medical certificates by District Surgeons will be welcomed by all medical men, service or non-service. This practice has had a demoralising effect both on those who were empowered to sign and on others. We congratulate the Government and their medical adviser, Surgeon-General Sprawson, for this change and hope that the members of the Medical Profession will heartily co-operate with the authorities in checking the evils connected with certification.

* * *

But how far the G.O. will be worked by *the controlling authorities in the* spirit underlying the order will depend entirely on the supervision exercised by the Government.

Signs are not wanting that obstructions would be placed in the smooth working of the G.O. We hear that departmental heads are still sending these certificates for countersignature to the district surgeons. It was only the other day, we heard that a Civil Surgeon gave instructions to a Government servant that he was not to go to any *assistant surgeon or honorary* but to an I.M.S. officer, if a medical certificate was required. It is interesting to note that this Civil Surgeon happens to be not an I.M.S. officer but an Indian assistant surgeon of the Provincial service temporarily acting in the higher ranks ! !

* * *

We offer our hearty greetings to the students of the Royapuram Medical Union in organising a Students' Union. The inaugural meeting was a brilliant success and if the enthusiasm of the students seen that day is continued there is no reason why it should not develop into a model for other institutions to copy. A novel experiment has been *introduced there in giving* responsible position to the students, the school staff remaining purely in an advisory capacity. We congratulate the Superintendent, Major Mahadevan, on this bold experiment and hope that the students will justify this trust and will not cause any necessity for the staff to intervene. The inaugural address of Surgeon-General Sprawson is printed elsewhere.

* * *

Surgeon-General Sprawson has dealt with the thorny subject of Medical Ethics in his address. The students carry with them the impressions of their school days and if improvement in the ethical standards is expected a *high ideal should be set before them.* It would be very desirable if, apart from lectures in Medical Ethics, which should form part of a Medical student's curriculum, a very high practical standard is insisted on in the teaching staff. Irregular and slothful habits, running of nursing homes, dispensaries and allied institutions either by themselves or obviously *binami* are hardly conducive of such standards.

* * *

We are glad that the inaugural meeting of the R.M.S. Union was utilised also as a graduation ceremony for the diplomates. The schools have been the cinderellas of Medical teaching institutions. A certain amount of ceremonial *would be impressive* and appreciated. We hope that there would be an annual function when a convocation of all the diplomates would be held. We place this before the authorities for their kind consideration.

* * *

We have been receiving complaints that elementary sanitary principles are not followed in some localities where the ownership rests with the Corporation or the Government. The visitations of the health staff were a

constant feature in the case of private owners, especially when ponds or wells were claimed to be larvæ breeders and notices to fill up such areas were the sequelæ. How very advisable it would be if the public health authorities set an example and *practised* what they preach.

* * *

We congratulate the medical graduates at the recent University examinations and heartily welcome them to our fold.

Applications for membership may be had on writing to the General Secretary, 100 Poonamallee Road, Vepery.

Discipline in the Service.

We learn from the local dailies that the Government contemplates the appointment of a committee to revise the rules governing the system of staffing the State hospitals in the Presidency with honorary medical men. We do not know which of the existing rules the Government desires to amend, nor what new rules it proposes to introduce. But if the past could to any extent guide the future, we may expect to hear a good deal about rules pertaining to the maintenance of "discipline." When the honorary scheme was first mooted some years ago, this subject of discipline was greatly stressed by the department and the Government. Those who strongly objected to the initiation of the scheme took their stand on the impossibility of enforcing discipline on the honorary men. Those who were lukewarm in its favour, almost believed in the existence of this difficulty, but still consented to the scheme with great reluctance. And even those who were enthusiastic about the scheme, were not a little nervous about this question of discipline.

In a well organized medical institution there should be no need for discipline, of the official and formal brand, in the medical staff. Complete co-operation, professional cordiality and team-interest in the scientific activities and scrupulous regard for the reputation of the institution should be more than enough for the smooth and efficient working of an institution. In the absence of the above, no amount of discipline can produce satisfactory results. We are therefore sceptical of rules, which aim at discipline, since it connotes a certain amount of compulsion on unwilling minds. But the official mind ever dwells on discipline and one would therefore expect to see the latter in perfect action in the salaried services. For a pattern, we shall see how this discipline is observed by the stipendiary staff who belong to various cadres with graded subordination of one set to another—the Civil Surgeon (Indian and European), the Assistant Surgeon, and below him, the much maligned Sub-Assistant Surgeon.

We are only looking for guidance and we consider it sufficient for our purpose to examine this discipline in action in a few spheres.

Punctuality and hours of work.—One of the honorary medical officers of a hospital in the City was once asked to explain why he was late on a particular day. We are not aware of the results of this enquiry. But we would be greatly obliged if the Government could satisfy themselves that all their paid medical officers and subordinates observe punctuality in the various institutions. We know of instances where medical officers have absented themselves from hospitals on public holidays, penultimate Saturdays and Sundays, not to speak of the innumerable occasions when they do not keep to the scheduled time. It was not very long ago that the

Superintendent of a teaching hospital felt it necessary to warn his medical officers that he would be compelled to open an attendance register if better punctuality was not kept in attending the hospital at the proper hours. How often they go late to their lectures and sometimes even fail to attend them! We have heard of instances where clinical teachers have days on end totally ignored the students attached to their wards. If the teachers believed that they had nothing to impart to the students, we have no quarrel with them. But what of that awe-inspiring discipline?

Private practice.—It would be useful for the Government to find out how many of their Assistant Surgons and others hang their sign-boards on chemists' shops, or otherwise interest themselves in these dispensaries. The disciplinary action taken against one such person, was to send him on some deputation and then raise him to the professorial gadi of an important institution. We believe that some of these officers have been circularised some time ago to desist from similar activities. But we can still come across dispensaries and drug stores run by or with the aid of, men high in service, under the glorified pseudonyms of laboratories where one could sometimes buy sera and stock-vaccines, but where one could always obtain tooth brushes and cosmetics. Some time back, we understand, certain applicants for honorary appointments were turned down as they were " directly " or " indirectly " connected with nursing homes. The quotation marks are not ours. But what do we find here? Members of the services are intimately connected with them and in some cases a hospital 'team' is transferred in its entirety to run private nursing homes.

When we mention these facts, we are not referring to the large question of the privilege of medical men in service to engage in private practice. The Independent Medical Profession has expressed its views more than once. But what we would like to know is, if the Government believes that these irregularities do not affect the morale and the efficiency of the medical department.

We consider that the few instances mentioned here are enough to indicate the type of discipline that prevails in the medical department. But what is the psychology behind this cry for discipline? Human nature has ever had admiration for war-heroes and things military. The less courageous and war-like the man, the greater the admiration and glamour he has for the military accoutrements and the handi-work of the drill-sergeant. Is it even so in the Madras Medical Department? The more an officer has worked *round* rules and regulations, the more he clamours for powers of drilling others into discipline!

Advertising and the Doctor.

The giving of a testimonial for a tooth paste by the Commissioner of Health of New York, has been made the basis of an issue as to whether or not individual physicians and the medical profession should advertise. In a day when advertising and propaganda are the great gods of the American press, medical organizations have had to do their utmost to sustain the ethical principles that have guided the profession for many years. Those principles are not obsolete. They are as necessary for the maintenance of scientific medicine, for the good of the patient, and for the public health as is the golden rule. Organized medicine has championed willingly the abolishment of mystery from medical practice. It has given freely of its services for education of the public in hygiene and for information as to the progress that medicine

has made in the control of preventable disease. A few country and state medical societies have used advertising space in promoting campaigns for the public health, in attacking quackery and in education of the public. But as yet there is little, if any, proof that such campaigns have had results warranting the money spent on them. The Secretary of one of the largest component societies of the American Medical Association has urged the employment of a public relations council for each medical group and the employment of advertising space in the press for the promotion of medical interests, but he has been guided, no doubt, by the mere fact that great commercial organizations have promoted their interests in this manner. In a few instances physicians holding memberships in medical organizations have permitted the use of their names in the promotion of products in the health field, and in but few instances have the medical societies of which they were members called them to account. The testimonial given by the Health Commissioner of New York, apparently aroused a storm of protest not so much because it was a testimonial as far as the fact that it represented a personal opinion not supported by adequate scientific evidence, and vaunting unduly the picture and personal qualities of the testimonial giver. The question in this case appears to be not so much one of the medical ethics as of scientific judgment and good taste—*(Journal, A. M. A.)*.

Leave on Medical Certificate (G.O.)

PROPOSED ALTERATIONS.

The Government has decided to follow the procedure adapted by the Government of India, and direct accordingly that the present practice under which a medical certificate in support of an application for leave, or extension of leave, by non-gazetted Government servants, is sent to the respective District Medical Officers for *counter-signature be discontinued*, and that the procedure analogous to that described below be adopted instead namely, an application by a non-gazetted Government servant in superior service for leave, or for extension of leave on medical certificate, must be accompanied by a certificate from the applicant's medical attendant. Such a certificate should distinctly state the nature of illness, etc., and period of absence from duty considered absolutely necessary.

This procedure will not apply to the Madras City Police.

Union Notes.

The Secretaries are very glad to note a steady increase of membership. The most of ratifying factors are the many voluntary letters received from the mofussil requesting admission and the prompt manner in which the subscriptions are sent. If we can read the signs aright, it only means that the rank and file are taking more interest in the profession and evince an ardent desire to better themselves. This is just the psychological moment when the Bulletin should satisfy their intellectual appetite, set them in the right path and guide them towards the high ideals for which we live and strive.

* * * *

There is a passage seen by one of us on the covering of an American Journal as being a quotation from Charles E. Dawes. The passage is tersely worded and goes straight to the heart, and will certainly bear repetition as we fear any paraphrasing will impair the beauty and the strength of the passage.

" If you work in a profession, in heaven's name work for it. If you live by a profession, live for it. Help and advance your co-worker. Respect the great power that protects you, that

surrounds you with the advantages of organization, and that makes it possible for you to achieve results. Speak well for it. Stand for it. Stand for its professional supremacy. If you must obstruct or decry those who strive to help, why—quit the profession. But as long as you are part of the profession, do not belittle it. If you do, you are loosening the tendrils that hold you to it, and with the first high wind that comes along, you will be up rooted and blown away and probably you will never know why."

* * * *

At the last meeting of the Governing Body the question of post-graduate study was considered and the Secretaries were deputed to study the methods prevalent in many other places and how it can be introduced in our place to suit the present conditions.

* * * *

The outstandings are collected to a very great extent and the arrears due will only be a very small sum at the end of the year. The Secretaries are seriously thinking of bringing a resolution that the subscription be payable yearly or half-yearly to help to minimize the work of keeping the accounts up-to-date month after month and at the same time save some money by dispensing with the services of the bill collector.

Royapuram Medical Students' Union.

A General Body Meeting of the students and staff of the Royapuram Medical School was held on Saturday, 8th November 1930. *Major V. Mahadevan*, I.M.S., M.R.C.P., F.R.C.S., presided.

1. The proposal to form the Royapuram Medical Students' Union was put before the meeting from the chair and was carried unanimously, with acclamation.

2. *Office-bearers.*

(*a*) Staff.

Ex-officio President.

Major V. Mahadevan.

Ex-officio Vice-President

Capt. A. K. Mûrti.

Advisory Committee.

Dr. P. Venkatagiri, M.D.

„ Nicholas, I.M.D.

„ M. Narasinga Rao.

Honorary Treasurer.

Dr. C. S. Mohanarangam.

(*b*) Students.

President.

T. Asirvatham.

Vice-President.

Samson Paul.

Secretaries.

K. M. Karunakaran.

C. P. Chakrapani.

Class Representatives.

Thirunavukarasu (IV year).

R. Doraswami Naidu (III year)

V. P. Kamath (II year).

Lakshminarayanappa (I year).

3. *Subscriptions.*

(*a*) Resolved that the minimum subscription shall be Rupee one, per annum.

(*b*) That the collection of subscriptions shall be entrusted to the class representatives.

4. The President addressed the gathering on the objects and aims of the union and hoped that whilst the *Staff would be happy to give their* advice and help, the Student Executive of the Union would successfully carry on the work of the Union. He then gave the students a few words of advice and practical wisdom.

5. The Secretary *on behalf of the* students proposed a hearty vote of thanks to the chair.

* * * *

A General Body Meeting of the R.M.S. Union was held on th November 1930. *Major V. Mahadevan*, I.M.S., presided.

1. A sports sub-committee consisting of the following was appointed to help the Union Executive for conducting the sports and school day celebrations.

Sports Committee.

President.
Dr. P. Venkatagiri.
Vice-President.
Dr. M. Narasinga Rao.
Treasurer.
Mr. C. R. Ranga Rao.
Additional Secretaries.
Mr. Subbaramayya.
Mr. E. Anantha Krishnan.
Members.
Mr. Sugandam (IV year).
,, Prasada Rao (III year).
,, Raman Nayar (II year).
,, K. P. Jacob (I year).

2. The report of the sports and school day celebration of last year and account of collection and expenditure were placed before the Union and were passed.

3. The meeting terminated with a vote of thangs to the chair.

The Madras Provincial Rural Medical Practitioners' Association.

NOTICE

The Third Provincial Conference of the Rural Medical Practitioners of the Madras Presidency will be held at 2 p.m., on Wednesday, the 31st December 1930, at the Y.M. C. A. Auditorium, Esplanade, Madras.

Dr. M. S. Krishnamurthi Ayyar, M.B., C.M., retired Sanitary Commissioner, Travancore, and Editor, 'The Medical Practitioner,' Madras, has kindly consented to preside.

All Rural Medical Practitioners and sympathisers—lay and medical—that are interested in the advancement of rural medical relief are cordially requested to attend and make the Conference a success.

S. Ramasubbu, L.M. & S.,
Secretary.

BULLETIN

OF THE

SOUTH INDIAN MEDICAL UNION

DECEMBER, 1930.

INAUGURAL ADDRESS AT THE ROYAPURAM MEDICAL STUDENTS' UNION

By Major-General C. A. Sprawson, C.I E., M.D., F.R.C.P.,

Surgeon-General, Madras Government.

I congratulate you on the formation of this medical union which I regard as a sign of life and vigour and I thank you for the honour you have done me in asking me to preside on the first occasion of your meeting. When Major Mahadevan asked me a few weeks ago to come down here and speak to you I gladly accepted, because I wanted this opportunity of meeting and speaking to you and to get into close touches with you, students of the Royapuram Medical School. We have just listened to your President's initial address and he referred to your training, some people think as inferior. Well I must admit that it is so. It is inferior in some respects and it is up to us here to try and remove this handicap. Unfortunately, medical profession in India is divided in many different ways —we have not only vaidyas, hakims, homeopaths and so on but we have amongst our own scientific medical men two compartments. One the higher consisting of those who had graduated from the medical colleges and the other, the lower consisting of L.M.Ps. No one is to be blamed for it. How are we going to unify this division. Obviously we do not want to drag the upper layer down but we want to bring the lower layer up by having a five years course and other changes. Unfortunately such changes take time, taking money and time as we go. But you

can be rest assured I am going to do my best to raise gradually the standard of L.M.P. education and see that no sharp division exists.

Now the *great majority of you are going to be general practitioners*, some in the country, some in the town, some in government service Whether you are in government service or not you are general practitioners. I know there are in the L.M.P. class always some brilliant brains who in spite of all difficulties come forward, but those are in the minority. I want to speak to the majority who do not come up to this. Well, now what can I say. You are going out to be general practitioners. Now the position of a general practitioner, I regard, is in the forefront of the fight against disease, not like staff officers behind the fighting line. The general practitioner is the man who makes the patient feel all right—first of all by fighting the enemy—disease. The general practitioner must regard his patients not merely as so many pathological specimens but as human beings. You must be gentle, kind and sympathetic towards your patients for the sufferer wants sympathy as much or more than skilled treatment.

I will speak to you about *medical ethics*. Medical ethics means right and wrong. Some people sometimes refer to this as medical etiquette. Medical etiquette is a matter of politeness but ethics is a matter of right and wrong. It has been said that the state of medical ethics in India is not high; possibly not, but one can see how much better it is to-day compared to a century ago. I can see a good deal of difference in the 30 years I have been in India. I am speaking about my experience in the north of India. Since the last 10 years there has been a good deal of improvement. Medical practitioners in this country have to-day higher ideals and they try to live up to them.

When a young man qualifies I will ask him to do three things. The first thing he must do is to *register* his name with the Madras Medical Council immediately. Secondly I will ask every young doctor to join a *medical association*, a local association, a local one or a general one; some sort of medical association so that all could meet together on a common platform socially. The third thing you must take to a *medical journal* as much as possible. I think every medical man ought to do that. Now when you register your name they give a copy of the Madras Medical Act with the various rules and at the end of that you have got a code of ethics. You will see there are practitioners who do not manage to live up to everything that is recommended there. But I want you to try and do them. There are certain things that are definitely forbidden. For instance you ought not to open a Chemist's shop. Many do that, but you ought not. If you were to do so I do not suppose anyone will punish you for that but still it ought not to be done. It does not matter if you compound the prescription for another doctor. I know a lot do that. I am told that many young doctors look upon that as a legitimate line of practice. It should not be done. You have been educated for something higher than shopkeeping. It is not right to have a compact between you and the pharmacists, hotel-keepers and traders "I will send all my patients to you and you may give so much on each medicine."

There is the question of unqualified practitioner. If a registered practitioner found himself in a sick room where an unqualified practitioner had also been summoned the registered practitioner should make it a point to give his advice direct to the patient. He should have no kind of consultation with the unqualified medical man.

You will have gathered by now the science of all this ethical rules, *i.e.*, to say 'Do unto other people as you would like others do to you'. Do not do anything against another practitioner even though he is doing it. You should not concern yourselves in the manufacture and sale of proprietary articles. That is to say, you may make a great discovery that such and such is particularly good for everything but you should not be concerned to put it at the market as a commercial concern.

Now just a few words about some of your duties towards your patients. Patients should be dealt with, as I said before, not as pathological specimens but as human beings. The first thing is that of secrecy. There must be strict secrecy. For instance, a mistress sends her maid to a doctor and pays for the consultation. The doctor might find that the maid was pregnant but he should not tell the mistress this, even though it was she who paid the fees. But if the maid permitted it, then of course he may pass on the information. Again let not the practitioners divulge anything about patient's illness to his superiors. A Collector might want to know what was wrong with a subordinate of his but the doctor if he has a strict sense of duty will not divulge his secret. Exceptions prevail in respect of the Army and the Police where the superior officer had a right to be told about the state of health of his men. Where the law courts were concerned, most magistrates were ready to respect a medical man's professional confidence but even here when this had to be broken the witness should commünicate his knowledge to the magistrate in writing. Thirdly the title of a doctor. You should not use the word Dr. before your name unless your are a M.D. Fourthly you must always be gentle and courteous towards your patients. The state of medical ethics in Great Britain is very high; better than anywhere else in the world. It was not so 150 years ago. The medical ethics is gradually getting better in India. When you go forth to earn your living in the world do so with the fixed intention of helping to raise the standard. The standard of the medical ethics is going higher. It is just as important as the standard of medical education. It is up to you to raise it.

MEDICAL INSPECTION OF SCHOOLS *

By K. S. Srinivasa Iyer, L.M.S., *Karaikudi.*

In dealing with this important subject, I shall briefly dwell on those aspects of medical inspection in schools that have come within my purview.

The scheme of Medical examination of school children was first proposed in the Madras Presidency in 1919. The then Surgeon-General formulated a proposal to appoint a special cadre of school medical service to perform the duties of the Medical Inspection of pupils, which for some reason or other fell through. The Medical Inspection was, at the outset, optional and was entrusted to such of the Medical men as were recommended by the managements of those schools that were willing to have the examination done. As few institutions arranged for the carrying out of the medical inspection, the Government of Madras made it compulsory in 1926, when the managements of schools were requested to recommend for the approval of the Surgeon-General the names of the medical men whom they would appoint as Medical Inspectors for their schools. The Government suggested that University Graduates who were assistant surgeons under local board or Government Hospitals and dispensaries should be *preferred to private practitioners*, and that in places where

* Read at a Conference of the Ramnad Teachers' Guild.

PUBLIC HEALTH

P. R. I.
ADVT.

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graduates were not available, sub-assistant surgeons might be appointed as Medical Inspectors; and recently, men with Public Health qualifications were also recommended to be employed as Medical Inspectors.

In the case of institutions, who appointed service men, as Medical Inspectors, the inspection has been done by several officers, who were in charge of the local hospitals and dispensaries at the time of medical inspection. On the other hand, schools which have employed private medical practitioners, mostly graduates (except in places where they were not available), have had the medical inspection carried out in successive years by one and the same person, the continuity proving beneficial to all concerned.

The present scheme of medical inspection is not quite as fruitful as it ought to be. Every year as soon as the school opens after the summer holidays, the Medical Inspector is requisitioned to do the work, and submit his report to the authorities before October. Reports of the boys found to be defective in health are sent to the parents or guardians, and the latter are desired to have the defect removed or the disease treated properly. In my experience as the Medical Inspector in a High School (Sri Minakshi Sundareswara Vidyasala, Karaikudi, Ramnad District), for the last six years—*vide* appendix for the tabulated result of the medical examination of pupils for the years 1926 to 1930, I regret to note that most of the cases referred to for treatment were not, in the earlier years, given the needful attention, though, during the last two years, there has been some response from the parents or guardians in the matter of treatment. There is no arrangement at present to note whether any treatment is given or not to the boys who are found below par in health and also to observe the progress in their health. This is possible only when the school can have a medical man for itself, either full or part time. As it is, the work of the Medical Inspector is over the moment he sends all his reports, and nothing intervenes before he comes again on the field for the next year's inspection. Though the present scheme draws attention to the diseases and defects in the children medically examined, it does not enforce proper treatment for them. It will be to the welfare of the affected boys that periodical examination of them should be strictly enforced and the result of the treatment given noted. In many cases the boys are so poor as not able to afford the necessary treatment, and it is essential that the Government should find ways of helping them. Unless this is done satisfactorily, the utility of the medical inspection is lost, and the annual examination has only a statistical value.

As prevention is better than cure, every school must provide for the proper teaching of hygiene and sanitation in all the classes and physiology in the higher forms. This might be entrusted, as far as possible, to the Medical Inspector, who should be given proper facilities to deliver magic lantern lectures on all health topics. Where a full-time medical man is entertained, he should with the help of the Physical Instructor select pupils according to their physique for the several games and exercises. In addition, he might be supplied with some common remedies and allowed to give proper treatment. All this means money.

Philanthropic gentlemen of the place might readily and willingly contribute for the medical relief and the Government might be requested to give sufficient grants for such purposes. The appointment of full-time medical officers in connection with each school would assuredly be most beneficial to all concerned. The number of unhealthy boys if the school would surely decrease and the general

standard of health of the pupils be much higher than now.

According to the present scheme, the medical examination of the boys have to be conducted only during the first three months of the school year as the connected reports have to be furnished to the authorities before October every year. During this period such diseases as are at the time prevalent are noted. Seasonal ailments like skin diseases, diseases of the respiratory tract, illness of organs of hearing, fevers and other conditions could not be detected.

One other point I would like to draw attention to is the poor nutrition of boys. This is largely due to the economic condition of the present day. It is a serious problem to remedy this malnutrition. I am of opinion that the best way of combating this evil would be to provide a good and nourishing mid-day meal to these pupils, as is actually being done in some schools conducted by the Corporation of Madras. Here again there is a call on the generosity of the wealthy public and a need for the Government to carry out an incumbent duty.

It should be possible for the teachers to secure improvement in the health of pupils declared defective; and as they are in close touch with the pupils and likewise are or ought to be in touch with their guardians they are in a position of vantage to see that the defects pointed out are rectified. It may safely and surely be said that without their hearty co-operation in the matter, no efforts on the part of either the Medical Inspector, the Headmaster or the Department are likely to bear fruit.

APPENDIX.

Statement on the Medical Examination of the pupils of Sri Minakshi Sundareswara Vidyasala, Karaikudi, Ramnad District during 1926—1930.

Diseases and defects.	Nov. 1926	Sept. 1927	Oct. 1928	Sept. 1929	Sept. 1930
Malnutrition ...	...	52	71	73	103
Skin, other diseases ...	...	3	...	...	2
Dental disease ...	...	2	1	1	...
Eye, Squint ...	...	...	2	2	4
Eye, other diseases ...	...	3	20	24	39
Eye, defective vision ...	5	5	2	3	7
Defective hearing ...	2	2	...	1	...
Tonsils ...	75	82	37	18	4
Adenoids ...	7	7	...	...	...
Defective speech ...	...	1	1	...	...
Heart disease ...	1	1	1	1	...
Definite Pulmonary Tuberculosis ...	...	...	1	...	...
Epilepsy ...	1	...	...	...	...
Rickets ...	...	1	...	...	...
Deformities ...	2	3	2	2	1
Orchitis ...	1	...	...	...	...
Tumour, Thigh ...	...	...	...	1	...
Malaria ...	...	...	...	...	1
Total examined ...	218	224	209	248	271

Average age, height and weight are only of statistical importance.

ASTHMA AN INHERITED ADRENAL DEFICIENCY SYNDROME *

By G. Sriramulu, L.C.P.S.

The disease asthma as it stands to-day has a varied etiology and as far as treatment for it is concerned there is no fixed or specific line on which to proceed. The innumerable drugs recommended for the disease all point towards attacking the specific toxin that has caused the paroxysm, excepting the adrenalin injection or gland tablets themselves which in my opinion is the main remedy that could really cure the patient, if at all we could call anything to have been cured. This does not replace the other modes of treatment which depend upon the exciting cause of the disease as a foreign protein or a specific bacterial toxin.

I consider asthma to have two causes—one a predisposing cause, the other the exciting cause. As per Doerr's classification :

ALLERGY
(is divided into two)

- Due to non-antigenic substances
- Antigenic substances
  - Toxins.
  - Foreign Proteins.

We all know what the various exciting causes are and for the present we are not concerned with them, but for this fact that the exciting cause by itself cannot produce a reaction but for the predisposition. The various substances that are safely credited to produce a paroxysm of asthma in certain individuals who are prone to get the attack on ingestion or inhalation of foreign proteins or absorbtion of toxins in cases of focal sepsis, never come to a stage of reaction in normal individuals that is normal individuals have a certain resistance or certain internal secretions that prevent the foreign protein or the toxin from causing a reaction to be called asthmatic. The normal individuals don't give a positive cutaneous reaction after scarification with any particular protein. This means that those that give a positive reaction on cutaneous scarification with a foreign protein or those that are having an asthmatic paroxysm are deficient of a substance or an internal secretion which only could overcome the toxins of the foreign protein in the presence of the specific toxins, that is toxins produced by the particular substance that has produced the reaction.

What is the only drug that controls the asthmatic paroxysm immediately ? As we all know it is a solution of adrenalin 1—1000 strength and it is this internal secretion that is deficient in a patient of asthma. When I say deficient I mean relatively as well as absolutely. By relative deficiency I mean that the adrenal secretion may be of the normal amount—1 to 3 ounces in 24 hours in an adult but the specific toxins are of such a nature that the Adrenalin is exhausted in the neutralising process. How the neutradisation occurs and all will be explained later. By absolute deficiency is meant that the adrenal glands are not functioning properly, resulting in a deficient secretion—quantity lesser than normal.

The chief symptom of asthma, *i.e.*, the dyspnoea is due to the bronchial

* Paper read before the South Indian Medical Union.

constriction and insufficient aeration of the lungs. How is it that the adrenal deficiency influences it? The muscle fibres of the bronchi are innervated by the Vagus, and the Sympathetic. The Vagus is a constrictor of the bronchial musculature. If the thoracic end of a cut cervical sympathetic is excited there is immediate profound dilatation of the bronchi. Stimulation of the peripheral end of a cut Vagus produces narrowing of the bronchioles with contraction of the bronchial muscles.

According to the respiratory theory of Sajous the adrenals carry a function of major importance related to pulmonary function, probably sympathetico-stimulator or vago-depressor effect. Sajous further says " While the probability must be admitted that under some conditions a diminution or absence of adrenin may be the result of hypo-function of these glands, possibly due to some toxic action upon them, rather than of exhaustion of Adrenin (still being produced in normal amount) by reason of an unusual demand for it in the system at large, the fact remains that discharges of Adrenin such as would exhaust the accommodation of this substance in the glands are known to occur under various conditions of unusual stress, nervous excitement or drug action." To these may be added the antigens of asthma such as the toxins from focal sepsis, and the protein molecules of vegetable or animal origin. The Antigen may be of an anti-Adrenin type—that is the Adrenalin is exhausted in the leucocytic stimulation for phagocytic action.

Sajous is of opinion that adrenalin promotes all anti-toxic functions by acceleration of oxygenation and metabolism. He has traced a nervous pathway leading directly down to the adrenals.

Gaskell has linked the adrenal secretion and the sympathetic activity in view of the similar embryonic origin of both, that is Chromaffin cells.

The adrenal secretion enters the venous blood stream by passing through. the adrenal veins into the Inferior Vena Cava. This secretion reaches the pulmonary air vesicles and causes the absorption of the oxygen into the blood. (The normal exchange of gases takes place in the lungs due to the higher pressure in the alveolar air and the minus pressure in the pulmonary capillaries surrounding the alveolii.) If on strangling, all the oxygen of the inspired air in the alveoli gets absorbed it means that there is something else than the physical force and Methy-haemoglobin and pressure reactions and that is the adrenal secretion which participates in the oxygen absorption process. So then the Adrenalin that comes in such close contact with the lungs must undoubtedly exert its influence upon the vagoconstrictor effect thereby stimulating the synpathetic. The sympathetic is a dilator. But the sympathetic by itself is functionless, and it is the adrenal secretion that constantly activates it. When there is an adrenal deficiency the sympathetic loses its bronchodilator or the anti-vagal factor in it and the broncho-constrictor effect of the vagus gains the upper hand. According to this theory it means that the patient having adrenal deficiency must be having asthma. But all cases of hypoadrenia do not suffer from asthma for example Addison's disease. By this I conclude that there is no absolute decrease in adrenal secretion but that what is normally secreted undergoes hyperdestruction while in the phagocytic or antitoxic action according to the exciting cause. Or it may be this—the toxins are of such a nature that they attack the peripheral ganglia which are connected with the adrenal glands through the sympathetic nerve fibres. The respiratory centre in the Medulla is so finely adjusted as to balance the vagal and the sympathetic constituents. If the

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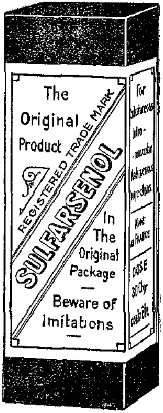

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sympethetic is depressed through want of adrenalin the broncho-constrictor effect of the vagus comes into action.

As a rule asthmatics have a low blood pressure and this is due to adrenal deficiency. The general effect of tonicity exerted by the adrenalin circulating in the blood is no more or a little deficient and as such there is a tendency for stagnation of blood in the loose tissues especially in the bronchi and in the nose over the turbinals. Prof. Dixon is of opinion that asthma is caused by obstruction to the airways resulting from the vascular engorgement of the bronchial mucous membrane. Sympathetic is a vasoconstrictor and when its stimulant adrenalin is absent or deficient the vasodilator effect is on and hence the engorgement. The mucous membrane of the turbinals and the lower nasal passages is overvascular and in parts venous plexuses occur encircled by bundles of muscle fibres. The bronchial mucous membrane has an insignificant blood supply and its engorgement cannot cause a constriction of the bronchial passages enough to produce dyspnoea. Dixon's experiment after ligaturing the pulmonary vein issuing from a lobe of the lung shows that the mucous membrane is not at all affected but that only the superficial blood-vessels are dilated, but not of a type to cause difficulty in breathing.

In severe forms of pulmonary shock the bronchi are not constricted and the lungs are collapsed and bloodless. There is dilatation of the pericutaneous lymphatic spaces due to the precipitation of the protein particles in the plasma which have become too large or too agglutinated to circulate due to the hydration. A severe form of protein hydration renders an organ bloodless. In the lungs this causes relaxation of the peri-bronchial muscular tissue—that is paralysis of the vagus.

When the hydration is a little less—that is the shock is of a less severe type for example asthma which is a form of mild pulmonary shock, the precipitation takes place in the pulmonary arteries in the terminal branches together with the blood corpuscles. This precipitation causes hyperacidity of the cells surrounding such a part. The bronchioles produce an excess of mucous and the unstriped muscle tissue contracts. The adrenalin that is required to overcome any shock is deficient and that is why the hydration and the precipitation take place. This sort of hydration of the protein particles is hereditary and so this is an inherited disease and the result is a malco-ordination of the sympathetic and the vagus resulting in a vagotonia.

The influence of heredity on the onset of symptoms is as follows. According to Cook and Vander Veer's observations "The average age and incidence of hypersensitiveness in the offspring depends upon the positive bilateral family history" (both the parents as asthmatics), "a positive unilateral family history" (only one of the parents either the father or the mother being an asthmatic) "and the absence of a positive family history of hypersensitiveness." The more complete the inheritance the earlier is the manifestation. In cases of positive bilateral inheritance before the fifth year 36·3% of the children are asthmatic. 14·3% in the group showing unilateral inheritance, and only 5% of those with no definite inheritance.

As per Mendelian laws of inheritance 75 per cent. of the offspring should be affected in positive bilateral cases and 50% in unilateral cases. Having established the hereditary influence we proceed to examine the influence of the exciting cause over the predisposition.

A predisposed individual has an over excitable bronchial centre in the Medulla.

The exciting causes are :—

Inhalation : 1 Animal dander
2. Vegetable pollen
3. Perfumes.

Ingestion : 1. Drugs
2. Animal } Proteins.
3. Vegetable }

Focal absorption : Bacterial toxin or protein.

Inhalation or Injection : } Therapeutic sera.

The route of infection to produce hypersensitiveness is different in each but the end result is the same in every case. It is the foreign protein that sensitises the person. In the inhalatory type they might enter through the mucous membrane of the turbinals, the tonsils and the lymph nodes of the pharynx and through the bronchii. All such proteins are capable of solution in the body fluids and they are always colloidal substances.

Brody and Dixon have shown an area on the nasal septum high up and farback to be the most sensitive part.

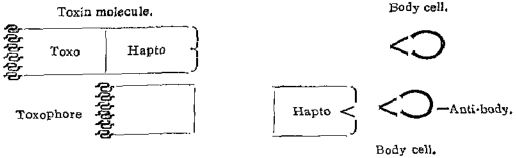
Ransom has found by experiment that stimulation of the mucous membrane of the nasal septum at the upper and back part causes a loss of expansion of the lung which he attributed to the contraction of the bronchial muscles. The upper and back part of the nasal septum is supplied by the naso palatine branch of the sphenopalatine ganglion and the connection of the sensory division of the Fifth nerve with the vagoaccessory nerve is effected in the Medulla Oblongata where their respective nucleii are very closely associated.

As previously stated when the vasotonic adrenalin is absent the loose tissues such as the mucous membrane of the nose and the bronchi get highly congested. These congested parts act as the best absorbing media for the invading exciting cause—the foreign protein in the inhalatory type. The colloidal foreign protein gets an easy entrance into the tissue fluids and circulates in the system. This invasion is sufficient to cause an attack of asthma. But there is another factor. In a man with narrow nasal passages, the congested mucous membrane on the turbinals may be sufficient to bring one or the other of the upper two turbinals into contact with the aforementioned sensitive asthmogenic area of the septum and thereby cause the reflex contraction of the bronchial musculature. The same might happen in the case of a deflected septum or polypi. All these may simply cause a deficient expansion of the lungs through the diminution of the passages—the bronchial tubes, but not enough to cause the true asthmatic dyspnoea.

Now coming to the process of sensitisation, the foreign proteins entering through the nasal and bronchial mucous membrane in colloidal form are taken up by the phagocytic cells of the blood. John Freeman of St. Mary's Hospital is of opinion that various proteins irritate the tissue cells of certain susceptible persons and the same might happen when it is inhaled. The sensitive part of the turbinal and the bronchial mucous membrane are the chief absorbing media for toxin, and the organism attacked reacts to a certain degree. The absorbed protein circulates in the blood and the bronchial centre in the medulla is stimulated with resulting dyspnoea. The attack of the foreign protein causes anaphylaxis. If an animal is injected with some foreign protein, that is a protein not-present in its blood normally, and an incubation period of ten days is allowed, a second injection of the same protein will cause severe anaphylactic symptoms. The reaction is specific and the protein used for the exciting dose must be the same as that of the sensitising one. Whatever the protein the symptoms are the same in the same species of animals. The same thing occurs in asthma in human beings.

The foreign protein absorbed from the respiratory tract is known as the Anaphylactogen This gets circulated in the blood and in spite of the phagocytic action from a precipitinlike substance called Anaphylatoxin. The body resistance produces an antibody called Antianaphylatoxin. This is the state of affairs when once the patient has got into his body some foreign protein. The toxins are neutralised by the anti-toxin and the patient tides over the first attack. On the occasion of a second attack with the same previously sensitised foreign protein a severe attack of asthma occurs and on every other ingress of the protein the attacks recur.

What occurs in such cases is—the invading toxin molecule consists of two parts, the Toxophore and the Haptophore groups. When the anaphylatoxin comes in contact with the anti-anaphylatoxin—the body cell or phagocytic cell—the haptophore groups are all attracted towards the side chain of the body cell and the toxophore group is left free in the blood stream. A large liberation of these toxophore groups causes the asthmatic attack.



Erlich's side chain theory of the first order.

This-reaction occurs at every attack. To produce the attack the liberated toxophore group has to come out of the blood into the tissue cells. Adrenal deficiency produces a vasodilation and the specially susceptible parts of the mucous membrane of the bronchii which have acted as the gateways for the entrance of the exciting protein are the chiefly congested parts and the haptophore groups getting lodged in their cells cause the already weakened sympathetic to get completely paralysed. This attack is overcome for the time being by the production of the antibody as a result of the reaction between haptophore group of the toxin molecule and the phagocytes of the blood. During the crisis there is leucopenia, shortened coagulation time, changes in the viscosity and refractive index, a fall of blood pressure, increased permeability of capillary endothelium and increased lymph flow. Recovery from the attack is followed by an Eosinophilia, deficient urea in blood and urine, excess of amino acids in the urine and deposit of urates. The eosinophilia in the blood indicates that the toxæmia is in the direction of an acidosis and the asthamatic is in a struggle to maintain its alkalinity. There is an excess of amino-acids in the blood and deficient chlorides in the blood and urine.

John Adams of Glasgow Infirmary suggests that the chloride shift is one of the methods by which the blood maintains its alkalinity and the effort is evidenced in blood as eosinophilia. The crowding of the sputum with eosinophiles is attributed to the difficulty in getting rid of the CO_2 of the blood. The liver function is also damaged and the increase in amino acids and hypercholesterolæmia is evidence thereof. Excess of diastase in the urine is also another manifestation. Most of these signs are present in patients of the hypo-adrenal type

but the severer forms arise only when the deficient adrenalin undergoes a hyper-destruction due to the toxins of the foreign proteins.

The attacks of asthma come on after any severe exhaustion or physical depression in some people. Great physical exhaustion causes a proportionate hypo-adrenia and the paroxysm comes on in the presence of the exciting cause, that is the foreign protein.

Dr. Oriel says that the effect of fatigue is to cause a disturbance of the balanced endocrine function, as a result of which the blood chemistry, is altered.

Sergent has described a test for adrenal deficiency, *viz.*, the white line phenomena. It is elicited by stroking on the skin of the abdomen gently by the finger tip while a white streak along the drawn line appears in a few minutes *if the test is positive. It* fades gradually after getting very distinct. It denotes a derangement of the vasomotor equilibrium due to the adrenal deficiency. In the ingestive type the foreign protein enters the blood through the intestines and causes the same type of reaction as in the inhalatory type. The toxic type due to focal infection is a constant source of absorption or slow inoculation.

In all the types the adrenalin is acted upon in one of the two ways. (1) In a destructive manner by the foreign protein which might require it to of neutralised. (2) The very source get adrenal secretion is attacked by the foreign protein resulting in a definite deficiency of the secretion.

Treatment. The sheet anchor of treatment in Asthma must be to set right the predisposition. The adrenal gland tablets are the best. The invasion of the foreign protein is to be checked next by determining the exact cause—by the history of the patient, particularly his diet and habit. In the inhalatory type the electrocautery and submucus resection or the cauterising of the asthmogenic area of the nasal septum are indicated. To cauterise or otherwise interfere with the nose simply because an enlarged turbinal is seen or a growth found in the roof of the nose with asthma would meet with failure. After all the patient may belong to the ingestive type in which case no amount of *treatment of the* nose would succeed. If the patient belongs to the inhalatory type than the cauterising or resection might help in preventing the foreign protein from gaining access to the patient's circulation through the congested mucous membrane. In the focal infective type a systematic search for focal sepsis must be made. In all the three types the patient should be slowly de-sensitised by the particular proteins that have caused the attack. The cutaneous test with several proteins might give the clue. The injections of the particular protein that gives a positive skin test certainly produces antibodies to overcome the invading proteins. In the toxic type the autovaccine is the only remedy. After all said and done the success of treatment rests upon the perseverence and patience of the doctor and the patient respectively.

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CARBUNCLES *

By C. R. Krishnaswamy, M.B., B.S.,
100, Poonamalee Road, Madras.

If I have chosen to bore you this evening with this very plain and common subject, it is because of the many misconceptions that exist about this condition and of the frequent wrong treatment pursued in the treatment of

*Read before the South Indian Medical Union.

the same. The lay public has such a great dread of this condition that the mention of its name is enough to frighten them. If only the number of cures compared to the fatalities, is brought to the notice of the people, then for one thing they may not be so afraid of this condition, and secondly they may readily consent to an operation at the stage when it is advised by the medical man.

This is essentially an affection of the skin, and the definition given in a book on diseases of the skin is that it is nothing more than a conglomeration of confluent boils, due to a simultaneous infection of a number of adjacent pilo-sebaceous follicles. This fact, that it is essentially in the skin that the whole trouble lies, was brought home very clearly to my mind when operating on very big carbuncles, that no matter how big the incision or how deep the cut, the muscles were always uninvolved, most, if not all the swelling was in the skin only.

The causative organism is usually staphylococcus pyogenes aureus and rarely streptococci, as I have noticed that in some cases with very red margins, and severe constitutional syptoms, an injection of antistreptococcal serum doing good leading to the conclusion that there is probably a streptococcal infection also.

The carbuncles usually occur in the neck, back, and those parts where the skin is thick. The infection in the original instance must have gone through the hair follicle and formed a small boil, and as the skin was thick preventing the contents of the boil from coming out, it naturally tended to spread in the deeper layers of skin infecting hair follicles, sweat glands and sebaceous glands. When the tension in these foci increase beyond a certain point they tend to burst through the various hair follicles thus giving the cribriform appearance of a carbuncle. It has been held that you can produce a carbuncle artificially by putting a thick non-absorbent paste over an inflammed area of the skin thus preventing its contents to come out but spread into the deep layers of the skin.

The devitalizing conditions like diabetes and nephritis and chronic alcoholism tend to predispose to carbuncle formation. I have noticed often times that a patient with a carbuncle in the earlier stages has sugar in the urine but as the patient gets operated and thereby gets better his sugar disappears. Perhaps, these patients have a very unstable sugar metabolism.

In some other patients when the carbuncle spreads, the sugar tends to increase and other bye-products of vicarious sugar metabolism like acetone and di-acetic acid appear in the urine thus leading one to conclude that the diabetes is aggravated by sepsis. Hence it is that in treating carbuncles one must treat both diabetes and sepsis side by side as treatment of one condition without the treatment of the other is of no avail.

There is not much difficulty in the diagnosis of this condition. A raw red swelling occurring in the back or the nape of the neck without any sign of fluctuation but tending to be diffuse is fairly characteristic of carbuncle in its earlier stages. When especially such a swelling occurs in a man who is diabetic or nephritic it clinches the diagnosis. This statement does not in the least mean to suggest that a carbuncle cannot occur in a non-diabetic, or otherwise normal man. In fact a carbuncle in a person who has no sugar or albumin in the urine is not serious. But one curious fact I must mention that one very often meets with a case of carbuncle where there is sugar in the

early stages and which disappears in the later stages when the sepsis has been brought under control either by operation or by natural means. I have not had occasion to estimate the blood sugar in these cases. When done, I expect that there will be increase of blood sugar in the blood.

I had made a statement in the last paragraph which needs further elucidation. Can carbuncles get alright without operation? Why not? But the proportion of such cures is very small and occurs only in very superficial cases and as carbuncles must often tend to occur in the deeper layers of the skin operative interference is the only course that offers relief in many cases.

A few years ago Morrison stated that instead of mutilating operations, an application of his paste consisting of two parts of anhydrous mag. sulph. and one of glycerine brings about such a resolution of the whole indurated area that after 72 hours you can without any anaethestic remove the sloughs. A further advantage he claimed for his cream was that you are saved the trouble of frequently changing the dressings, for according to him one thick application of the cream covered by a generous amount of cotton does not need changing for 36 to 48 hours. I am not prepared to subscribe to this view at all, the cream neither easing the pain nor resolving the induration any more than what would have occurred in the natural course of events.

A carbuncle cannot be aborted when once it has started forming. But one conservative method in my hands has prevented its spread and checked its course, *i. e.* cupping and fomentation.

An oval or a circular cup with a liberal supply of sterile vaseline is applied over the carbuncle, so that its most prominent part is just in the centre of the cup and the air in it exhausted just enough not to cause pain and the same amount of exhaustion kept on by applying a clip to the rubber tubing leading from the cup. This suction is kept on for fifteen minutes each time. Personally one application a day, I think, is enough; but fomentation of the part must be done twice a day. Under this procedure I have noticed that the thick skin over the central part of the carbuncle yields more quickly and at the same time the tension in the deeper layers of the skin is considerably relieved by pus oozing through the various holes on the surface due to the suction action. Very often all that is needed after a three or four days suction is just to connect the few superficial holes in the skin with the scissors, but the when the slough in the deeper layers of the skin come off *en masse* leaving behind only a raw clean ulcer.

A few years ago, a Bengalee Surgeon from Calcutta in a lecture in Madras described a method of his to treat the carbuncles in a conservative way, which was to gently insinuate a thin hypodermic needle through one of the holes in the skin to the deeper parts of the carbuncle and then inject a few drops of weak H_2O_2; the idea being to soften the deeper layers of the slough, and melt them as it were and make that material come out through the various holes in the skin by the very pressure caused inside by the giving up of oxygen. This is not without pain when carried out carelessly because of the sudden increase of pressure in the deeper layer of the skin.

I have a fear in my mind, probably not justified at all, that an injection of H_2O_2 like this in a partially closed cavity might drive sepsis in deeper planes, and instead of limiting the septic activities, might tend to disperse them. Hence I modify this method by injecting hypertonic saline instead of

the H_2O_2. This, I hold, must be less painful than the former.

Eusol also can be used for the same purpose but unless it is used in very weak dilution it is likely to cause very severe reaction and great sloughing.

In my student days I used to see carbuncles incised, scraped with a spoon, touched with carbolic and dressed. I must say that with our persent knowledge, we may not approve of this method, as such scraping is more likely to desseminate sepsis than remove the slough which this scraping is intended to achieve.

What I consider to be the ideal method with the present knowledge we have on the subject is as follows :—Put a crucial incision deep enough to enable you to lift up four flaps with four tissue forceps. Lifting up each flap in succession, cut off the sloughs from under the skin with a pair of scissors; then working with the scissors to the outermost periphery of the slough you get to the underside of the slough, separating it from the healthy tissues you will be able to remove the whole slough *en masse* leaving the muscles or the fascia cleanly exposed. Even a sharp haemorrhage need not worry you as haemostasis can be postponed to a later stage. After the removal of the slough and the clean exposure of the healthy tissues I take an ordinary sterile operation towel and press it tight against the wound for a minute or two. This stops all the minor oozing and the bigger blood vessels can be easily caught. I personally never had to tie in any case, for the simple application of the artery forceps for a short while was enough to control the haemorrhage. In exceptional cases when I found the oozing rather troublesome I took a towel from the boiling water with my gloved hand and squeezed it dry and applied it to the wound when all the oozing stopped.

When a few years ago I had the honour of being the assistant to Dr. Rangachari, he contrived a method of haemostasis which at that time appeared to me to be very ingenious. This was to leave a packing of sterile gauze in the wound and bringing the four flaps by one or more stitches. The dressings are wonderfully clean even after some hours in contradistinction to the messy appearance of the dressing when done in the ordinary way. This was done in only two cases when I was with him, but the results were far from encouraging but for the cleanliness, for in one of them the temperature shot up very high probably due to the absorption of the toxins as well as the pus forming organisms, that the patient died the next day and in the other I cannot recollect now what happened, at any rate not very encouraging, for otherwise we should have continued that method. I am sure that he is not himself continuing that method now.

Further dressings are carried on in the usual manner though personally I have a partiality for a 1 in 2000 acriflavine dressing.

Most of the cases get on with an uneventful course. Occasionally one finds a tendency for the inflammation to spread in one or more directions. When I find any induration at the base of any flap spreading on to a certain distance I take a small quantity of hypertonic saline and inject into the slough. After a few days of fomentation and such injecting I find that the induration subsides and the liquified matter drains through the wound.

On a few occasions I have noticed that the carbuncle heals splendidly but the patient is losing ground unaccompanied by any bad symptoms like high fever or increase of sugar in

the urine or large quantities of acetone. When I had occasion to discuss this most disheartening condition with a colleague, he very kindly advised me to try large quantities of insulin accompanied by plenty of glucose by mouth. I mean to try this trick next time when I am in the predicament I just now narrated.

I cannot conclude this paper without expressing my sincere and warm thanks to my friend Dr. K. Srinivasa Rau, who has been an aesthetising for me and who with his unruffled and calm manner enabled me to go on with the operation without in the least bit being worried about the patients condition. I must ask you to pardon my use of the first personal pronoun more often than I would have wanted to use. The intriguing nature of the subject and the circumstances which led to the narration of my experiences is my only excuse.

REVIEWS.

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The special Eye, Ear, Nose and Throat number of the Antiseptic has fully lived up to the expectations which one has on anything brought out under the auspices of the talented Editors, Drs. U. Rama Rao and Dr. Krishna Rao It contains original articles, extracts and summaries, relating to the special subjects dealt with. A very pleasing and useful feature is the articles by local specialists which are bound to be more useful to the Indian reading public instead of the symposiums of foreign experiences as is found in many other journals. We can safely commend this volume as a useful addition to the library of any medical man. We hope that we shall see soon more issues of a similar nature.

Investigation of beriberi in Guntur District

BY

MAJOR V. MAHADEVAN, I.M.S.

AND

DR. T. K. RAMAN.

We have received a brochure with the above caption from the authors.

The report is based on the study of one hundred cases of beriberi that came under their observation in the Guntur District Hospital during 1929-30. It was observed by the authors that the disease is mostly prevalent among the poor labour classes whose staple food is mainly rice. The disease occurs in the rainy season with a tendency to recurrence in the succeeding years, the maximum incidence being in August September, the period of highest rain fall in Guntur.

Rice is shown to be an important if not the only essential causal agent by the fact that the disease occurs largely in regions where rice is the staple food in the district and also by the fact that when rice is withdrawn from the diet of beriberi patients they improve rapidly.

In Guntur *overmilled* rice does not seem to be responsible because the labour classes among whom beriberi is mostly prevalent use under milled rice. The disease according to them is the result of an intoxication plus an infection (a spirochæte ?) although the specific nature of the infection is not shown. No case of infantile beriberi has been observed in Guntur. The P.M. findings of 4 cases of beriberi are also included.

The report is highly interesting and is well illustrated with photographs, charts and tables. The authors deserve praise for the excellent use of the material available in a district hospital in the course of their routine work which is usually very heavy.